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white disc, half an inch in diameter, became invisible when plunged to a depth of from 3 to 6 inches, while a copious exit stream, which constantly flowed away from one of the ponds, presented the same deep-brown tint.]

Rev. H. Lloyd, D. D., read a paper on the meteorology of Ireland, in reference to the tracks of storms in Ireland, so far as the law of their distribution has been determined in Ireland, by means of the simultaneous observations of 1851.

Mr. D. Moore read a notice of the vine disease in Ireland :—

“ It is a remarkable fact, that two diseases bearing much similarity in appearance, and producing equally fatal effects on their victims, both previously unknown, should have occurred in Europe during the same year, and that they should have attacked two species of plants of more importance to the inhabitants of these countries, than, perhaps, any other two under cultivation, namely, the potato and vine.

“ So far as I can learn, they first appeared in England during the summer of 1845, after which they seem to have travelled, for some time, at least, in opposite directions, the potato disease from the Continent to England, and the vine disease from England to the Continent. It was in a grapery near Margate, in Kent, that the mildew first showed on the vine, and from thence it spread southward. It does not, however, appear that the vintage in France was seriously affected before 1848, when the disease began to create alarm among the vine-growers in some parts of that country ; but, after that period, its spread was rapid both south and north.

“ In 1851, we hear of it being at Genoa, Naples, and onwards to Portugal ; thence to Madeira and Greece, and now all the vine-producing countries of southern Europe are said to be more or less affected. In England, it continued among

the graperies, in the southern counties, for some time after it appeared, but gradually spread to the north and west.

"The first opportunity I had of seeing it was in a grapery near Manchester, in 1851, where it occurred that summer.

"Since that period I have been expecting to hear of it in Ireland, but am not aware that it made its appearance before last year, when it occurred slightly in several places. My attention was first drawn to it by Mr. Smith, his Excellency's gardener, at the Viceregal Gardens, who stated that something was destroying his grapes in one of the graperies, which we soon found to be a mild phase of the prevalent disease. This year the same house has been again attacked with more virulence, and also the one next it in the same range.

"I have, too, observed it on a vine growing in one of the plant-houses in the Botanic Gardens; and at Merrion Nursery the vines in one of the vineries have been so much affected, as to render their being cut down altogether necessary.

"Such is a brief sketch of the progress of this malady, and I shall now make a few observations on its ordinary appearance and results. As in the potato disease, a minute parasitical fungus is always present, preying on the parts affected; but whether the parasite be the cause of the disease, or consequent upon it, is still a disputed question, which I am unable to throw any further light on. I may, however, state, that most observers in this country incline to what is called the fungal theory, in considering the parasite the cause, especially the Rev. Mr. Berkley, whose knowledge of that tribe of plants is not surpassed by any other European botanist.

"On the other hand, some of the ablest observers in France, who have studied the subject thoroughly, including Dr. Léveillé, and Monsieur Decaisne, consider the fungus to be developed after the tissue of the plant is become diseased, and, therefore, the consequence only.

"This destructive parasite, which I believe to cause the

disease, belongs to the tribe of fungi called Muscedines, which contains the common blue and white moulds, that are everywhere so common, preying on decaying substances, that they have been called nature's scavengers. But there are some of the species which only feed on living vegetable tissue, such as the peach and rose mildews, *Oidium erysiphoides*, and *Oidium leucocconium*, and it is among these the egg mildew of the vine is found. The species was not known to botanists before 1845, when it was first noticed by Mr. Tucker, gardener to a Mr. Salter, near Ramsgate, after whom Mr. Berkley named it *Oidium Tuckeri*. It appears on the leaves and young shoots of the vines, as well as on the berries themselves, marking the former with white, mealy, circumscribed spots in the early stage, and, in a more advanced state, becomes generally diffused over both. When viewed through a good microscope, it is found to consist of slender, branched, articulate threads, which spread over the surface of the spots, and have been seen among the cellular tissue of the leaf, under the epidermis, pushing up the fertile, erect, simple filaments, which bear the reproductive spores at their upper extremities, through the stomates of the leaf, in a similar manner to the potato mould. The effects are rapid: a short time after it appears, pale marks begin to show on the leaves, which gradually enlarge and become dry and brown as if frayed, which is the case with the vines at the Viceregal Garden at present.

" As the berries advance, black depressed spots appear on them, as if they had been injured by being struck against each other, or with a rod. The spots spread, and the berry gets soft and putrid; but if any of the branches on the bunch have been attacked, all the berries on that branch turn brown and soft, and sometimes the branch altogether.

" The appearance of the vine at the Botanic Garden is somewhat different—the berries have become dry, with cracks over the surface, which seems to be the most general state of the disease.

"In this hasty communication I shall only further mention what has been stated to be an effectual remedy in the English graperies, when applied in time, namely, flowers of sulphur, either by themselves, or mixed with lime-water. The pounded mineral has been scattered over all parts of the vines, both in a dry state, and in a state of suspension in water. In the former case, it is blown through a machine called a sulphurator, something in the way of a common bellows; and in the latter, it is washed on with the ordinary garden syringe. All the best practical observers state that in either way it kills the fungus, and arrests the disease. The same remedy has long been understood and applied by horticulturists to destroy the mildew on peach trees, as it does, and the disease stops, which fact goes a considerable way in proving the fungus to be the cause, and not the consequence."

Rev. Dr. Todd then presented a model of an ancient megalithic monument, in the county of Sligo, called Leacht-conmic-rois, situated in the "Deer Park" of the Right Hon. John Wynne.

George Petrie, LL. D., made some remarks on the monuments of a similar kind found in the county of Sligo.

The President announced the close of the Session, and congratulated the Academy on their new Library and Museum, which were opened this evening.